

NAVAJO GENERATING STATION

P. O. BOX 850 PAGE, ARIZONA 86040

January 28, 2018

Dr. Donald Benn, Executive Director Navajo Nation Environmental Protection Agency P.O. Box 339 Window Rock, AZ 86515 And Navajo Nation EPA Air Quality Control Program Operating Permit Program Route 112, North Bldg. #2837 PO Box 529 Fort Defiance, AZ 86504

Director, Air Division
U.S. Environmental Protection Agency, Region IX
Mail Code: AIR-5
75 Hawthorne Street
San Francisco, CA 94105

RE: Navajo Generating Station FIP - 40 CFR §49.24, Title V Permit to Operate No. NN-ROP-05-06 and PSD Permit Number AZ 08-01A Quarterly Emission Report

Dear Directors,

Enclosed is the Fourth Quarter 2017 emissions report for Navajo Generating Station. The report contains the following information:

- Daily electrical energy generated in megawatt-hours (permit condition II.B.5.b).
- Sulfur dioxide and carbon dioxide information according to the procedures set forth at 40 CFR 60.7 and permit condition II.B.5.a;
- Identification of periods when opacity values exceeded 20 %, excluding condensed uncombined water droplets over any 6-minute period, and 40% averaged over 6 minutes, during absorber upset transition periods.

Page Two (cover letter) January 28, 2018

- Identification of periods when sulfur dioxide emissions exceeded 1.0 lb/mmBTU as a plantwide 3-hour average, and a CEMS data assessment according to the procedures set forth at 40 CFR §49.24(d)(1) of NGS FIP.
- Nitrogen Oxide and Carbon Monoxide information according to PSD Permit Number AZ 08-01A, condition IX.G.5

With respect to the opacity data presented in the report, please note that 6-minute opacity readings are not individually listed during scrubber operations because the saturated stack conditions impedes the accuracy of the readings. The report identifies the block time periods for each unit that the scrubbers were operational and the stacks were saturated, in lieu of reporting the individual 6-minute wet stack readings.

Please contact Paul Ostapuk at (928) 645-6577 if you have any questions.

Sincerely,

Kenneth J. Frazier

Plant Manager / Responsible Official

Enclosures

cc: William J. Mcclellan, SRP – Manager Air Quality & Environmental Services Environmental File

NAVAJO GENERATING STATION EXCESS EMISSIONS REPORT FOURTH QUARTER, 2017

CEM EXCESS EMISSION REPORT

Salt River Project
Navajo Generating Station
Page, Arizona

UNIT # 1, 2, 3

YEAR 2017

QUARTER FOURTH

This report is in accordance with reporting requirements set forth in the NGS FIP – 40 CFR §49.24, Title V Permit to Operate, Permit No. NN-ROP 05-06, Section II.B.5 and PSD Permit Number AZ 08-01A, Condition IX.G.5.

Emission standards in this report are in accordance with the NGS FIP – 40 CFR §49.24 sections (d)(1), (d)(3), (d)(4), (e)(8), Title V Permit to Operate, NN-ROP-05-06 Section II.B.2 and PSD Permit Number AZ 08-01A Conditions IX.B.1 and IX.B.2

EXCESS EMISSIONS FOR QUARTER:

None

NAVAJO GENERATING STATION CEM SUMMARY SHEET FOURTH QUARTER OF 2017

	UNIT 1	UNIT 2	UNIT 3
# Hours of I.D. Fan Operation	2027.9 hrs	1922.5 hrs	2043.2 hrs
# Hours Boiler Operation	2015.6 hrs	1892.3 hrs	2033.3 hrs
Opacity Monitor Availability	99.93 %	99.56 %	97.06 %
SO2 #/mmBTU Availability	99.71 %	99.58 %	99.96 %
NOx #/mmBTU Availability	99.71 %	99.58 %	99.96 %
CO #/mmBTU Availability	99.71 %	99.42 %	99.94 %
Opacity Emission >20% (6-Min)	0.0 hrs	0.0 hrs	0.0 hrs
% Operating Time	0.00 %	0.00 %	0.00 %
Opacity Emission >40% (6-Min)	0.0 hrs	0.0 hrs	0.0 hrs
% Operating Time	0.00 %	0.00 %	0.00 %
SO2 #/mmBTU > 0.1 (365BOD)	0.0 days	0.0 days	0.0 days
% Operating Time	0.00 %	0.00 %	0.00 %
SO2 #/mmBTU >1.0 (3Hr)	0.0 days	0.0 days	0.0 days
% Operating Time	0.0 %	0.0 %	0.0 %
NOx #/mmBTU >0.24 (30D)	0.0 days	0.0 days	0.0 days
% Operating Time	0.0 %	0.0 %	0.0 %
CO #/mmBTU >0.23 (30D)	0.0 days	0.0 days	0.0 days
% Operating Time	0.0 %	0.0 %	0.0 %
CO #/mmBTU >0.15 (12M)	0.0 days	0.0 days	0.0 days
% Operating Time	0.0 %	0.0 %	0.0 %

Plant Coal, Ash and Road Sweeping Activities - Opacity Emission ≥20% (hours)

NAVAJO GENERATING STATION CEMS MONITOR LISTING

Teledyne Monitor Labs Inc.
Opacity Monitor
Model Lighthawk 560

Teledyne Monitor Labs Inc. Flow Monitor Ultra Flow 150

Thermo Environmental Sulfur Dioxide Monitor Model 43i

> Thermo Environmental CO₂ Monitor Model 410i

> Thermo Environmental NO_x Monitor Model 42i

Thermo Environmental CO Monitor Model 48i

UNIT 1 REPORT SUMMARY

- o Daily Electric Energy Report
- o Opacity Excess Emission and Monitoring System Performance
- o Excess Wet Opacity Report
- o Excess Dry Opacity Report
- o Opacity Downtime Report
- o SO2 Excess Emission and Monitoring System Performance
- o SO2 Excess Emission Report 1.0 lb/MMBtu
- o SO2 Excess Emission Report 0.1 lb/MMBtu
- o SO2 Downtime Report
- o CO2 Downtime Report
- o NOx Excess Emission Report
- o NOx Downtime Report
- o CO Excess Emission Report- 30-Day
- o CO Excess Emission Report- 12-Month
- o CO Downtime Report

40 CFR 52.145.d.5.iii Daily Electric Energy Report Gigawatt Hours

Source: Unit 1 Channel: 1 GW365

Report for 10/01/2017 thru 12/31/2017

Date	Gigawatts	Date	Gigawatts	Date	Gigawatts
10/1/2017	13.67	11/1/2017	12.4	12/1/2017	******
10/2/2017	14.50	11/2/2017	15.3	12/2/2017	******
10/3/2017	16.36	11/3/2017	15.0	12/3/2017	*****
10/4/2017	17.23	11/4/2017	15.11	12/4/2017	******
10/5/2017	16.55	11/5/2017	14.69	12/5/2017	
10/6/2017	14.89	11/6/2017	16.11	12/6/2017	
10/7/2017	15.20	11/7/2017	17.20	12/7/2017	*****
10/8/2017	14.39	11/8/2017	16.65	12/8/2017	
10/9/2017	13.46	11/9/2017	16.89	12/9/2017	
10/10/2017	14.78	11/10/2017	15.73	12/10/2017	15.61
10/11/2017	15.67	11/11/2017	14.48	12/11/2017	15.06
10/12/2017	14.07	11/12/2017	12.61	12/12/2017	16.57
10/13/2017	16.10	11/13/2017	14.39	12/13/2017	16.18
10/14/2017	14.79	11/14/2017	14.61	12/14/2017	14.78
10/15/2017	13.37	11/15/2017	15.29	12/15/2017	16.41
10/16/2017	16.38	11/16/2017	15.60	12/16/2017	16.09
10/17/2017	18.20	11/17/2017	15.5	12/17/2017	15.44
10/18/2017	18.13	11/18/2017	14.82	12/18/2017	14.68
10/19/2017	17.37	11/19/2017	13.24	12/19/2017	14.68
10/20/2017	15.99	11/20/2017	14.40	12/20/2017	15.72
10/21/2017	15.37	11/21/2017	15.20	12/21/2017	15.76
10/22/2017	16.58	11/22/2017	14.11	12/22/2017	17.08
10/23/2017	17.30	11/23/2017	12.73	12/23/2017	17.88
10/24/2017	17.91	11/24/2017	13.13	12/24/2017	16.63
10/25/2017	17.68	11/25/2017	13.46	12/25/2017	16.06
10/26/2017	16.62	11/26/2017	13.00	12/26/2017	15.44
10/27/2017	14.31	11/27/2017	14.93	12/27/2017	16.87
10/28/2017	16.4	11/28/2017	14.99	12/28/2017	9.62
10/29/2017	15.30	11/29/2017	10.57	12/29/2017	15.87
10/30/2017	16.22	11/30/2017		12/30/2017	16.38
10/31/2017	15.8			12/31/2017	15.87

Invalid Boiler Operating Day

40 CFR Part 60 CEM Quarterly Report Excess Emission and Monitoring System Performance

Reporting dates 10/01/2017 00:00 through 12/31/2017 23:59

Pollutant: Opacity / "1 Opacity"

Emission Limit: 40

Company Name: SRP - Navajo, Unit 1

Address: Navajo Generating Station Page, AZ 86040

Unit Description: coal-fired cyclonic boiler power plant

Total source operating time in reporting period: 2027.9 hours

Emission Data Summary (note 1)		CEMS Downtime Summary (note 1)
1. Duration of excess emissions in period due to	o:	1. Duration of CEMS downtime in period due to:
a. Start Up/Shut Down	0.0	a. Monitoring Equipment Malfunction 0.0
b. Control Equipment Failure	0.0	b. Non-Monitoring Equipment Malfunction 0.3
c. Process Problems	0.0	c. Quality Assurance
d. Exempt (Wet Stack - Scrubber Operation)	2027.9	d. Other Known Monitor Downtime Cause 0.1
e. Unknown Excess Emissions Cause	0.0	e. Unknown Monitor Downtime Cause 0.0
2. Total duration of excess emission	0.0	2. Total duration of CEMS downtime 1.5
3. Excess emission duration (%)	0.00%	3. CEMS downtime (%)

Total source operating time in reporting period: = Time in the Report Period minus the Process Down Episode Time.

I have personally examined and am familiar with the information submitted in this document and all attachments and certify (based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information) that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement(s) made in this document or its attachments may be punishable as a criminal offense."

Name: Walter H. Begay

Signature: Walthy

Title: Air Quality Environmental Engineer

Date: 1-29-2018

Navajo Unit 1 Excess Wet Opacity Report

SRP - Navajo, Unit 1 Navajo Generating Station Page, AZ 86040

Start: 10/01/2017 00:00 End: 12/31/2017 23:59

POLLUTANT: 1 Opacity SOURCE: Unit 1 EPISODE: Opacity Over Limit

Incident Start	Incident End	Length Hours_	Reason	Action _	
10/01/2017 00:00 - 12/08/2017 23:59 -		1475.9 552.0	Wet Scrubber Wet Scrubber		

Total Duration: 2027.9 Hours

Navajo Unit 1 Excess Dry Opacity Report

SRP - Navajo, Unit 1 Navajo Generating Station Page, AZ 86040

Start: 10/01/2017 00:00 End: 12/31/2017 23:59

POLLUTANT: 1 Opacity SOURCE: Unit 1 EPISODE: Opacity Over Limit

Incident Start

Incident Length Hours

End

Reason

No Excess Emissions

Navajo Unit 1 Opacity Downtime Report

SRP - Navajo, Unit 1 Navajo Generating Station

Page, AZ 86040

Start: 10/01/2017 00:00 End: 12/31/2017 23:59

POLLUTANT: 1 Opacity SOURCE: Unit 1 EPISODE: Opacity Analyzer Downtime

Incident Start			Incident End		Length Mins.	Reason
10/09/2017	10:06	-	10/09/2017	10:11	06	Power Outage
10/16/2017	15:06	-	11/16/2017	15:11	06	Non-Monitor Maintenance
			11/06/2017		12	Non-Monitor Maintenance
11/20/2017	15:00	_	11/20/2017	15:05	06	Quality Assurance Activity
			12/27/2017		60	Quality Assurance Activity

TOTAL DURATION = 1.5 Hrs

40 CFR Part 60 CEM Quarterly Report Excess Emission and Monitoring System Performance

Reporting dates 10/01/2017 00:00 through 12/31/2017 23:59

Pollutant: SO2 lb/mmBTU (365 Boiler Operating Day rolling average) Emission Limit: 0.1

Company Name: SRP - Navajo, Unit 1

Address: Navajo Generating Station Page, AZ 86040

Unit Description: coal-fired cyclonic boiler power plant

Total source operating time in reporting period: 2015.6 hours

Emission Data Summary(note 1)		CEMS Downtime Summary(note 1)	
1. Duration of excess emissions in period due	to:	1. Duration of CEMS downtime in period due to:	
a. Start Up/Shut Down	0.0	a. Monitoring Equipment Malfunction	2.0
b. Control Equipment Failure	0.0	b. Non-Monitoring Equipment Malfunction	0.0
c. Process Problems	0.0	c. Quality Assurance	4.0
d. Exempt (Wet Stack - Scrubber Operation)	0.0	d. Other Known Monitor Downtime Cause	0.0
e. UnKnown Excess Emissions Cause	0.0	e. UnKnown Monitor Downtime Cause	0.0
2. Total duration of excess emission	0.0	2. Total duration of CEMS downtime	6.0
3. Excess emission duration (%)	0.00%	3. CEMS downtime (%)	0.29%

Total source operating time in reporting period: = Time in the Report Period minus the Process Down Episode Time.

I have personally examined and am familiar with the information submitted in this document and all attachments and certify (based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information) that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement(s) made in this document or its attachments may be punishable as a criminal offense."

Name: Walter H. Begay

Signature:

Title: Air Quality Environmental Engineer

Date: 1-29-2018

Navajo Unit 1 SO2 Excess Emission Report

SRP - Navajo, Unit 1 Navajo Generating Station Page, AZ 86040

Start: 10/01/2017 00:00

End: 12/31/2017 23:59

Emission Limit: 1.0 lb/mmBTU, 3 hr. plant wide average

Date and Time Period

Magnitude

Reason

No Excess Emission

Navajo Unit 1 SO2 Excess Emission Report

SRP - Navajo, Unit 1 Navajo Generating Station Page, AZ 86040

Start: 10/01/2017 00:00

End: 12/31/2017 23:59

Emission Limit: 0.1 lb/mmBTU, 365 BOD rolling average

Date and Time Period

Magnitude

Reason

No Excess Emission

Navajo Unit 1 SO2 Downtime Report

Start: 10/01/2017 00:00 End: 12/31/2017 23:59

SRP - Navajo, Unit 1 Navajo Generating Station Page, AZ 86040

POLLUTANT: 1 SO2 ppm SOURCE: Unit 1 EPISODE: SO2 Analyzer Downtime

Incident Start	Incident End		Length Hrs.	Reason
10/05/2017 14:00	10/05/2017	14:59	1.0	Quality Assurance
11/14/2017 08:00	11/14/2017	09:59	2.0	Monitor Maintenance
11/14/2017 10:00	11/14/2017	10:59	1.0	Quality Assurance
11/14/2017 14:00	11/14/2017	14:59	1.0	Quality Assurance
11/16/2017 14:00	11/16/2017	14:59	1.0	Quality Assurance

Navajo Unit 1 CO2 Downtime Report

Start: 10/01/2017 00:00

End: 12/31/2017 23:59

SRP - Navajo, Unit 1 Navajo Generating Station Page, AZ 86040

POLLUTANT: 1 CO2 cor SOURCE: Unit 1 EPISODE: CO2 Analyzer Downtime

Incident Start	Incident End	Length Hrs.		Reason	
10/05/2017 14:00	10/05/2017	14:59	1.0	Quality Assurance	
11/14/2017 08:00	11/14/2017	09:59	2.0	Monitor Maintenance	
11/14/2017 10:00	11/14/2017	10:59	1.0	Quality Assurance	
11/14/2017 14:00	11/14/2017	14:59	1.0	Quality Assurance	
11/16/2017 14:00	11/16/2017	14:59	1.0	Quality Assurance	

Navajo Unit 1 NOx Excess Emission Report

SRP - Navajo, Unit 1 Navajo Generating Station Page, AZ 86040

Start: 10/01/2017 00:00

End: 12/31/2017 23:59

Emission Limit: 0.24 lb/mmBTU, 30 Day rolling average

Date and Time Period

Magnitude

Reason

No Excess Emission

Navajo Unit 1 NOx Downtime Report

Start: 10/01/2017 00:00 End: 12/31/2017 23:59

SRP - Navajo, Unit 1 Navajo Generating Station

Page, AZ 86040

POLLUTANT: 1 NOx cor SOURCE: Unit 1 EPISODE: NOx Analyzer Downtime

Incident Start		Incident End		Length Hrs.		Reason
10/05/2017	14:00	10/05/2017	14:59	1.0	Quality A	Assurance
11/14/2017	08:00	11/14/2017	09:59	2.0	Monitor !	Maintenance
11/14/2017	10:00	11/14/2017	10:59	1.0	Quality i	Assurance
11/14/2017	14:00	11/14/2017	14:59	1.0	Quality A	Assurance
11/16/2017	14:00	11/16/2017	14:59	1.0	Quality A	Assurance

Navajo Unit 1 CO Excess Emission Report

SRP - Navajo, Unit 1 Navajo Generating Station

Page, AZ 86040

Start: 10/01/2017 00:00

End: 12/31/2017 23:59

Emission Limit: 0.23 lb/mmBTU, 30 Day rolling average

Date and Time Period

Magnitude

Reason

No Excess Emissions

Total Duration = 0.0 Days

Navajo Unit 1 CO Excess Emission Report

SRP - Navajo, Unit 1 Navajo Generating Station Page, AZ 86040

Start: 10/01/2017 00:00

End:

12/31/2017 23:59

Emission Limit: 0.15 lb/mmBTU, 12-Month rolling average

Date and Time Period

Magnitude

Reason

No Excess Emission

Navajo Unit 1 CO Downtime Report

Start: 10/01/2017 00:00 End: 12/31/2017 23:59

SRP - Navajo, Unit 1 Navajo Generating Station

Page, AZ 86040

POLLUTANT: 1 CO cor SOURCE: Unit 1 EPISODE: CO Analyzer Downtime

Incident Start	Incident End	i	Length Hrs.	Reason	
10/05/2017 14:00	10/05/2017	14:59	1.0	Quality Assurance	
11/14/2017 08:00	11/14/2017	09:59	2.0	Monitor Maintenance	
11/14/2017 10:00	11/14/2017	10:59	1.0	Quality Assurance	
11/14/2017 14:00	11/14/2017	14:59	1.0	Quality Assurance	
11/16/2017 14:00	11/16/2017	14:59	1.0	Quality Assurance	

UNIT 2 REPORT SUMMARY

- o Daily Electric Energy Report
- o Opacity Excess Emission and Monitoring System Performance
- o Excess Wet Opacity Report
- o Excess Dry Opacity Report
- o Opacity Downtime Report
- o SO2 Excess Emission and Monitoring System Performance
- o SO2 Excess Emission Report 1.0 lb/MMBtu
- o SO2 Excess Emission Report 0.1 lb/MMBtu
- o SO2 Downtime Report
- o CO2 Downtime Report
- o NOx Excess Emission Report
- o NOx Downtime Report
- o CO Excess Emission Report- 30-Day
- o CO Excess Emission Report- 12-Month
- o CO Downtime Report

40 CFR 52.145.d.5.iii Daily Electric Energy Report Gigawatt Hours

Source: Unit 2 Channel: 2 GW365

Report for 10/01/2017 thru 12/31/2017

Date	Gigawatts	Date	Gigawatts	Date	Gigawatts
10/1/2017	13.49	11/1/2017	15.57	12/1/2017	15.00
10/2/2017	14.39	11/2/2017	14.87	12/2/2017	16.68
10/3/2017	16.36	11/3/2017	14.83	12/3/2017	13.84
10/4/2017	17.40	11/4/2017	15.29	12/4/2017	15.26
10/5/2017	16.54	11/5/2017	14.64	12/5/2017	
10/6/2017	14.68	11/6/2017	16.75	12/6/2017	
10/7/2017	15.12	11/7/2017	17.13	12/7/2017	
10/8/2017	14.25	11/8/2017	17.21	12/8/2017	****
10/9/2017	14.33	11/9/2017	17.43	12/9/2017	******
10/10/2017	14.52	11/10/2017	16.25	12/10/2017	-
10/11/2017	15.89	11/11/2017	14.74	12/11/2017	*****
10/12/2017	15.79	11/12/2017	12.39	12/12/2017	7.52
10/13/2017	15.66	11/13/2017	14.47	12/13/2017	8.64
10/14/2017	14.69	11/14/2017	14.63	12/14/2017	13.15
10/15/2017	14.21	11/15/2017	15.16	12/15/2017	
10/16/2017	15.95	11/16/2017	15.84	12/16/2017	
10/17/2017	18.18	11/17/2017	15.85	12/17/2017	
10/18/2017	18.04	11/18/2017	15.06	12/18/2017	11.97
10/19/2017	17.13	11/19/2017	12.00	12/19/2017	14.75
10/20/2017	15.91	11/20/2017	15.23	12/20/2017	15.77
10/21/2017	15.02	11/21/2017	15.12	12/21/2017	16.11
10/22/2017	15.81	11/22/2017	14.16	12/22/2017	16.59
10/23/2017	17.51	11/23/2017	12.68	12/23/2017	17.29
10/24/2017	18.73	11/24/2017	13.19	12/24/2017	15.97
10/25/2017	18.08	11/25/2017	13.66	12/25/2017	15.61
10/26/2017	16.77	11/26/2017	12.96	12/26/2017	17.42
10/27/2017	16.50	11/27/2017	13.67	12/27/2017	
10/28/2017	16.53	11/28/2017	13.39	12/28/2017	
10/29/2017	14.57	11/29/2017	15.73	12/29/2017	
10/30/2017	16.10	11/30/2017	15.40	12/30/2017	
10/31/2017	16.35			12/31/2017	

----- Invalid Boiler Operating Day

40 CFR Part 60 CEM Quarterly Report Excess Emission and Monitoring System Performance

Reporting dates 10/01/2017 00:00 through 12/31/2017 23:59

Pollutant: Opacity / "2 Opacity" Emission Limit: 40

Company Name: SRP - Navajo, Unit 2

Address: Navajo Generating Station Page, AZ 86040

Unit Description: coal-fired cyclonic boiler power plant

Total source operating time in reporting period: 1922.5 hours

Emission Data Summary (note 1)		CEMS Downtime Summary (note 1)	
1. Duration of excess emissions in period due to:		1. Duration of CEMS downtime in period due to:	
a. Start Up/Shut Down	0.0	a. Monitoring Equipment Malfunction	0.5
b. Control Equipment Failure	0.0	b. Non-Monitoring Equipment Malfunction	0.5
c. Process Problems	0.0	c. Quality Assurance	2.2
d. Exempt (Wet Stack - Scrubber Operation) 193	22.5	d. Other Known Monitor Downtime Cause	5.2
e. Unknown Excess Emissions Cause	0.0	e. Unknown Monitor Downtime Cause	0.0
2. Total duration of excess emission	0.0	2. Total duration of CEMS downtime	8.4
3. Excess emission duration (%) 0	.00%	3. CEMS downtime (%)	0.43%

Total source operating time in reporting period: = Time in the Report Period minus the Process Down Episode Time.

I have personally examined and am familiar with the information submitted in this document and all attachments and certify (based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information) that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement(s) made in this document or its attachments may be punishable as a criminal offense."

Name: Walter H. Begay

Signature: Warlet

Title: Air Quality Environmental Engineer

Date: 1-29-2018

Navajo Unit 2 Excess Wet Opacity Report

SRP - Navajo, Unit 2 Navajo Generating Station Page, AZ 86040 Start: 10/01/2017 00:00 End: 12/31/2017 23:59

POLLUTANT: 2 Opacity SOURCE: Unit 2 EPISODE: Opacity Over Limit

Incident Start	Incident End		ngth ours	Rea	ason	Act:	ion
10/01/2017 00:00	12/05/2017	09:38	1569.6	Wet	Scrubber	Operation	Exempt
12/11/2017 12:54	12/15/2017	11:12	94.3	Wet	Scrubber	Operation	Exempt
12/17/2017 15:21	12/28/2017	09:55	258.6	Wet	Scrubber	Operation	Exempt

Total Duration 1922.5 Hours

Navajo Unit 2 Excess Dry Opacity Report

SRP - Navajo, Unit 2 Navajo Generating Station Page, AZ 86040 Start: 10/01/2017 00:00 End: 12/31/2017 23:59

POLLUTANT: 1 Opacity SOURCE: Unit 2 EPISODE: Opacity Over Limit

Incident Start

Incident Length End Hours

Reason

No Excess Emissions

Total Duration 0.0 Hours

Navajo Unit 2 Opacity Downtime Report

Start: 10/01/2017 00:00

End: 12/31/2017 23:59

SRP - Navajo, Unit 2 Navajo Generating Station

Page, AZ 86040

POLLUTANT: 2 Opacity SOURCE: Unit 2 EPISODE: Opacity Analyzer Downtime

Incident	Incident	Length	•
Start	End	Mins.	Reason
10/09/2017 07:48	- 10/09/2017 12:35	288	Power Outage
10/11/2017 07:18	- 10/11/2017 07:35	18	Power Outage
10/11/2017 11:06	- 10/11/2017 11:11	06	Power Outage
10/11/2017 12:48	- 10/11/2017 12:59	12	Non-Monitor Maintenance
10/16/2017 14:24	- 10/16/2017 14:35	12	Non-Monitor Maintenance
11/06/2017 09:18	- 11/06/2017 09:23	06	Non-Monitor Maintenance
11/20/2017 14:42	- 11/20/2017 14:47	06	Monitor Maintenance
12/05/2017 08:18	- 12/05/2017 08:23	06	Quality Assurance Activity
12/05/2017 08:30	- 12/05/2017 09:41	72	Quality Assurance Activity
12/13/2017 10:00	- 12/13/2017 10:05	06	Monitor Maintenance
12/13/2017 10:12	- 12/13/2017 10:17	06	Monitor Maintenance
12/21/2017 13:18	- 12/21/2017 14:11	54	Quality Assurance Activity
12/27/2017 15:00	- 12/27/2017 15:11	12	Monitor Maintenance

TOTAL DURATION = 8.4 Hours

40 CFR Part 60 CEM Quarterly Report Excess Emission and Monitoring System Performance

Reporting dates 10/01/2017 00:00 through 12/31/2017 23:59

Pollutant: SO2 lb/mmBTU (365 Boiler Operating Day rolling average) Emission Limit: 0.1

Company Name: SRP - Navajo, Unit 2

Address: Navajo Generating Station Page, AZ 86040

Unit Description: coal-fired cyclonic boiler power plant

Total source operating time in reporting period: 1892.3 hours

Emission Data Summary(note 1)		CEMS Downtime Summary(note 1)	
1. Duration of excess emissions in period due	to:	1. Duration of CEMS downtime in period due to:	
a. Start Up/Shut Down	0.0	a. Monitoring Equipment Malfunction	0.0
b. Control Equipment Failure	0.0	b. Non-Monitoring Equipment Malfunction	0.0
c. Process Problems	0.0	c. Quality Assurance	5.0
d. Exempt (Wet Stack - Scrubber Operation)	0.0	d. Other Known Monitor Downtime Cause	3.0
e. UnKnown Excess Emissions Cause	0.0	e. UnKnown Monitor Downtime Cause	0.0
2. Total duration of excess emission	0.0	2. Total duration of CEMS downtime	8.0
3. Excess emission duration (%)	0.00%	3. CEMS downtime (%)	0.42%

Total source operating time in reporting period: = Time in the Report Period minus the Process Down Episode Time.

I have personally examined and am familiar with the information submitted in this document and all attachments and certify (based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information) that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statment(s) made in this document or its attachments may be punishable as a criminal offense."

Name: Walter H. Begay

Signature: Wall Myla

Title: Air Quality Environmental Engineer

Date: 1-29-2018

Navajo Unit 2 SO2 Excess Emission Report

SRP - Navajo, Unit 2 Navajo Generating Station Page, AZ 86040 Start: 10/01/2017 00:00

End: 12/31/2017 23:59

Emission Limit: 1.0 lb/mmBTU, 3 hr. plant wide average

Date and Time Period

Magnitude

Reason

No Excess Emission

Navajo Unit 2 SO2 Excess Emission Report

SRP - Navajo, Unit 2 Navajo Generating Station Page, AZ 86040 Start: 10/01/2017 00:00 End: 12/31/2017 23:59

Emission Limit: 0.1 lb/mmBTU, 365 BOD rolling average

Date and Time Period

Magnitude

Reason

No Excess Emission

Navajo Unit 2 SO2 Downtime Report

SRP - Navajo, Unit 2 Navajo Generating Station

Page, AZ 86040

Start: 10/01/2017 00:00 End: 12/31/2017 23:59

POLLUTANT: 2 SO2 ppm SOURCE: Unit 2 EPISODE: SO2 Analyzer Downtime

Incident Start	Incident End	Length Hrs.	Reason
10/09/2017 08:00	10/09/2017 08:59	1.0	Power Outage
10/09/2017 11:00	10/09/2017 11:59	1.0	Power Outage
11/16/2017 14:00	11/16/2017 14:59	1.0	Quality assurance activity
11/16/2017 18:00	11/16/2017 18:59	1.0	Quality assurance activity
11/20/2017 10:00	11/20/2017 10:59	1.0	Quality assurance activity
11/20/2017 15:00	11/20/2017 15:59	1.0	Quality assurance activity
11/21/2017 11:00	11/21/2017 11:59	1.0	Quality assurance activity
12/11/2017 23:00	12/11/2017 23:59	1.0	Unit Startup

Navajo Unit 2 CO2 Downtime Report

Start: 10/01/2017 00:00 End: 12/31/2017 23:59

SRP - Navajo, Unit 2 Navajo Generating Station Page, AZ 86040

POLLUTANT: 2 CO2 cor SOURCE: Unit 2 EPISODE: CO2 Analyzer Downtime

Incident		Incident	Length		
Start		End	Hrs.		Reason
10/09/2017	08:00	10/09/2017	08:59	1.0	Power Outage
10/09/2017	11:00	10/09/2017	11:59	1.0	Power Outage
11/16/2017	14:00	11/16/2017	14:59	1.0	Quality assurance activity
11/16/2017	18:00	11/16/2017	18:59	1.0	Quality assurance activity
11/20/2017	10:00	11/20/2017	10:59	1.0	Quality assurance activity
11/20/2017	15:00	11/20/2017	15:59	1.0	Quality assurance activity
11/21/2017	11:00	11/21/2017	11:59	1.0	Quality assurance activity
12/11/2017	23:00	12/11/2017	23:59	1.0	Unit Startup

Navajo Unit 2 NOx Excess Emission Report

SRP - Navajo, Unit 2 Navajo Generating Station Page, AZ 86040

Start: 10/01/2017 00:00

12/31/2017 23:59 End:

Emission Limit: 0.24 lb/mmBTU, 30 Day rolling average

Date and Time Period

Magnitude

Reason

No Excess Emission

Navajo Unit 2 NOx Downtime Report

SRP - Navajo, Unit 2 Navajo Generating Station

Page, AZ 86040

Start: 10/01/2017 00:00 End: 12/31/2017 23:59

EPISODE: NOx Analyzer Downtime POLLUTANT: 2 NOx cor SOURCE: Unit 2

Incident Start	Incident End	Length Hrs.	Reason
10/09/2017 08:0	0 10/09/2017 08:5	9 1.0	Power Outage
10/09/2017 11:0	0 10/09/2017 11:5	9 1.0	Power Outage
11/16/2017 14:0	0 11/16/2017 14:5	9 1.0	Quality assurance activity
11/16/2017 18:0	0 11/16/2017 18:5	9 1.0	Quality assurance activity
11/20/2017 10:0	0 11/20/2017 10:5	9 1.0	Quality assurance activity
11/20/2017 15:0	0 11/20/2017 15:5	9 1.0	Quality assurance activity
11/21/2017 11:0	0 11/21/2017 11:5	9 1.0	Quality assurance activity
12/11/2017 23:0	0 12/11/2017 23:5	9 1.0	Unit Startup

Navajo Unit 2 CO Excess Emission Report

SRP - Navajo, Unit 2 Navajo Generating Station Page, AZ 86040

Start: 10/01/2017 00:00 End: 12/31/2017 23:59

Emission Limit: 0.23 lb/mmBTU, 30 Day rolling average

Date and Time Period

Magnitude

Reason

No Excess Emission

Navajo Unit 2 CO Excess Emission Report

SRP - Navajo, Unit 2 Navajo Generating Station Page, AZ 86040

Start: 10/01/2017 00:00

End:

12/31/2017 23:59

Emission Limit: 0.15 lb/mmBTU, 12-Month rolling average

Date and Time Period

Magnitude

Reason

No Excess Emission

Navajo Unit 2 CO Downtime Report

SRP - Navajo, Unit 2 Navajo Generating Station

Page, AZ 86040

Start: 10/01/2017 00:00 End: 12/31/2017 23:59

POLLUTANT: 2 CO cor SOURCE: Unit 2 EPISODE: CO Analyzer Downtime

Incident	Incident	Length		
Start	End	Hrs.		Reason
10/09/2017 08:00	10/09/2017	08:59	1.0	Power Outage
10/09/2017 11:00	10/09/2017	11:59	1.0	Power Outage
11/15/2017 05:00	11/15/2017	07:59	3.0	CO Analyzer Problem
11/16/2017 14:00	11/16/2017	14:59	1.0	Quality assurance activity
11/16/2017 18:00	11/16/2017	18:59	1.0	Quality assurance activity
11/20/2017 10:00	11/20/2017	10:59	1.0	Quality assurance activity
11/20/2017 15:00	11/20/2017	15:59	1.0	Quality assurance activity
11/21/2017 11:00	11/21/2017	11:59	1.0	Quality assurance activity
12/11/2017 23:00	12/11/2017	23:59	1.0	Unit Startup

UNIT 3 REPORT SUMMARY

- o Daily Electric Energy Report
- o Opacity Excess Emission and Monitoring System Performance
- o Excess Wet Opacity Report
- o Excess Dry Opacity Report
- o Opacity Downtime Report
- o SO2 Excess Emission and Monitoring System Performance
- o SO2 Excess Emission Report 1.0 lb/MMBtu
- o SO2 Excess Emission Report 0.1 lb/MMBtu
- o SO2 Downtime Report
- o CO2 Downtime Report
- o NOx Excess Emission Report
- o NOx Downtime Report
- o CO Excess Emission Report- 30-Day
- o CO Excess Emission Report- 12-Month
- o CO Downtime Report

40 CFR 52.145.d.5.iii Daily Electric Energy Report Gigawatt Hours

Source: Unit 3 Channel: 3 GW365

Report for 10/01/2017 thru 12/30/2017

Date	Gigawatts	Date	Gigawatts	Date	Gigawatts
10/1/2017	14.01	11/1/2017	15.25	12/1/2017	17.11
10/2/2017		11/2/2017	14.94	12/2/2017	16.53
10/3/2017		11/3/2017	14.86	12/3/2017	12.90
10/4/2017		11/4/2017	15.30	12/4/2017	16.48
10/5/2017		11/5/2017	15.13	12/5/2017	18.0
10/6/2017	*****	11/6/2017	16.60	12/6/2017	17.6
10/7/2017		11/7/2017	17.02	12/7/2017	17.7
10/8/2017		11/8/2017	16.81	12/8/2017	17.57
10/9/2017	14.92	11/9/2017	16.82	12/9/2017	16.48
10/10/2017	14.75	11/10/2017	15.95	12/10/2017	16.20
10/11/2017	13.29	11/11/2017	14.59	12/11/2017	16.79
10/12/2017	15.71	11/12/2017	12.77	12/12/2017	16.51
10/13/2017	14.68	11/13/2017	14.41	12/13/2017	15.92
10/14/2017	14.52	11/14/2017	15.17	12/14/2017	14.63
10/15/2017	14.23	11/15/2017	15.29	12/15/2017	16.37
10/16/2017	15.94	11/16/2017	15.70	12/16/2017	15.78
10/17/2017	18.44	11/17/2017	15.85	12/17/2017	15.62
10/18/2017	18.58	11/18/2017	14.42	12/18/2017	14.78
10/19/2017	19.11	11/19/2017	12.53	12/19/2017	14.68
10/20/2017	15.83	11/20/2017	14.96	12/20/2017	16.00
10/21/2017		11/21/2017	15.48	12/21/2017	16.18
10/22/2017		11/22/2017	14.23	12/22/2017	16.61
10/23/2017		11/23/2017	12.73	12/23/2017	17.53
10/24/2017	16.5	11/24/2017	12.68	12/24/2017	16.64
10/25/2017	18.65	11/25/2017	13.91	12/25/2017	15.95
10/26/2017	16.89	11/26/2017	12.54	12/26/2017	17.63
10/27/2017	15.74	11/27/2017	14.35	12/27/2017	16.79
10/28/2017	14.39	11/28/2017	15.14	12/28/2017	16.15
10/29/2017	13.60	11/29/2017	15.90	12/29/2017	15.87
10/30/2017	15.66	11/30/2017	15.29	12/30/2017	15.83
10/31/2017	13.35			12/31/2017	15.86

Invalid Boiler Operating Day

40 CFR Part 60 CEM Quarterly Report Excess Emission and Monitoring System Performance

Reporting dates 10/01/2017 00:00 through 12/31/2017 23:59

Pollutant: Opacity / "3 Opacity"

Emission Limit: 40

Company Name: SRP - Navajo, Unit 3

Address: Navajo Generating Station Page, AZ 86040

Unit Description: coal-fired cyclonic boiler power plant

Total source operating time in reporting period: 2043.2 hours

Emission Data Summary (note 1)		CEMS Downtime Summary (note 1)		
1. Duration of excess emissions in period due	to:	1. Duration of CEMS downtime in period due to:		
a. Start Up/Shut Down	0.0	a. Monitoring Equipment Malfunction	58.0	
b. Control Equipment Failure	0.0	b. Non-Monitoring Equipment Malfunction	1.1	
c. Process Problems	0.0	c. Quality Assurance	1.0	
d. Exempt (Wet Stack - Scrubber Operation)	2043.2	d. Other Known Monitor Downtime Cause	0.0	
e. Unknown Excess Emissions Cause	0.0	e. Unknown Monitor Downtime Cause	0.0	
2. Total duration of excess emission	0.0	2. Total duration of CEMS downtime	60.1	
3. Excess emission duration (%)	0.0%	3. CEMS downtime (%)	2.94%	

Total source operating time in reporting period: = Time in the Report Period minus the Process Down Episode Time.

*Please see cover letter and attached "Written Notification Report for Excess Emissions and Control System Outage" for explanation of potential excess emissions.

I have personally examined and am familiar with the information submitted in this document and all attachments and certify (based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information) that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement(s) made in this document or its attachments may be punishable as a criminal offense."

Name: Walter H. Begay

Signature:

Title: Air Quality Environmental Engineer

Navajo Unit 3 Excess Wet Opacity Report

SRP - Navajo, Unit 3 Navajo Generating Station Page, AZ 86040 Start: 10/01/2017 00:00 End: 12/31/2017 23:59

POLLUTANT: 3 Opacity SOURCE: Unit 3 EPISODE: Opacity Over Limit

Incident Start	Incident End	Length Hours	Reason	Action
10/01/2017 00:00 -	10/03/2017 09:21	57.3	Wet Scrubber	Operation Exempt
10/08/2017 12:41 -	10/21/2017 17:58	317.3	Wet Scrubber	Operation Exempt
10/23/2017 11:26 -	12/31/2017 23:59	1668.5	Wet Scrubber	Operation Exempt

Total Duration: 2043.2 Hours

Navajo Unit 3 Excess Dry Opacity Report

SRP - Navajo, Unit 3 Navajo Generating Station Page, AZ 86040

Start: 10/01/2017 00:00 End: 12/31/2017 23:59

POLLUTANT: 1 Opacity SOURCE: Unit 2 EPISODE: Opacity Over Limit

Incident

Start

Incident End

Length Hours

Reason

No Excess Emission

Total Duration 0.0 Hours

Navajo Unit 3 Opacity Downtime Report

SRP - Navajo, Unit 3 Navajo Generating Station

Page, AZ 86040

Start: 10/01/2017 00:00 End: 12/31/2017 23:59

POLLUTANT: 3 Opacity SOURCE: Unit 3 EPISODE: Opacity Analyzer Downtime

Incident	Incident	Length	
Start	End	Mins.	Reason
10/16/2017 13:36	- 10/16/2017 13:47	, 12	Non-Monitor Maintenance
11/01/2017 21:30	- 11/01/2017 21:35	06	Non-Monitor Maintenance
11/01/2017 21:42	- 11/01/2017 22:23	42	Non-Monitor Maintenance
11/06/2017 08:42	- 11/06/2017 08:47	06	Non-Monitor Maintenance
11/20/2017 13:36	- 11/20/2017 13:47	12	Monitor Maintenance
12/13/2017 09:30	- 12/13/2017 09:35	06	Monitor Maintenance
12/19/2017 09:06	- 12/20/2017 05:29	1224	Monitor Maintenance
12/20/2017 05:42	- 12/21/2017 05:29	1428	Monitor Out of Service
12/21/2017 05:42	- 12/21/2017 18:35	774	Monitor Out of Service
12/27/2017 13:54	- 12/27/2017 14:29	36	Monitor Maintenance
12/27/2017 14:36	- 12/27/2017 15:35	60	Quality Assurance Activity

TOTAL DURATION = 60.1 Hours

40 CFR Part 60 CEM Quarterly Report Excess Emission and Monitoring System Performance

Reporting dates 10/01/2017 00:00 through 12/31/2017 23:59

Pollutant: SO2 lb/mmBTU (365 Boiler Operating Day rolling average) Emission Limit: 0.1

Company Name: SRP - Navajo, Unit 3

Address: Navajo Generating Station Page, AZ 86040

Unit Description: coal-fired cyclonic boiler power plant

Total source operating time in reporting period: 2033.3 hours

Emission Data Summary(note 1)	CEMS Downtime Summary(note 1)		
1. Duration of excess emissions in period due	to:	1. Duration of CEMS downtime in period due to:	
a. Start Up/Shut Down	0.0	a. Monitoring Equipment Malfunction	0.0
b. Control Equipment Failure	0.0	b. Non-Monitoring Equipment Malfunction	0.0
c. Process Problems	0.0	c. Quality Assurance	1.0
d. Exempt (Wet Stack - Scrubber Operation)	0.0	d. Other Known Monitor Downtime Cause	0.0
e. UnKnown Excess Emissions Cause	0.0	e. UnKnown Monitor Downtime Cause	0.0
2. Total duration of excess emission	0.0	2. Total duration of CEMS downtime	1.0
3. Excess emission duration (%)	0.00%	3. CEMS downtime (%)	0.04%

Total source operating time in reporting period: = Time in the Report Period minus the Process Down Episode Time.

I have personally examined and am familiar with the information submitted in this document and all attachments and certify (based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information) that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement(s) made in this document or its attachments may be punishable as a criminal offense."

Name: Walter H. Begay

Signature: ___

Title: Air Quality Environmental Engineer

Navajo Unit 3 SO2 Excess Emission Report

SRP - Navajo, Unit 3 Navajo Generating Station Page, AZ 86040

Start: 10/01/2017 00:00 End: 12/31/2017 23:59

Emission Limit: 1.0 lb/mmBTU, 3 hr. plant wide average

Date and Time Period

Magnitude

Reason

No Excess Emission

Navajo Unit 3 SO2 Excess Emission Report

Start: 10/01/2017 00:00

12/31/2017 23:59

End:

Reason

SRP - Navajo, Unit 3 Navajo Generating Station Page, AZ 86040

Emission Limit: 0.1 lb/mmBTU, 365 BOD rolling average

Magnitude Date and Time Period No Excess Emission

Navajo Unit 3 SO2 Downtime Report

SRP - Navajo, Unit 3 Navajo Generating Station Page, AZ 86040

Start: 10/01/2017 00:00 End: 12/31/2017 23:59

POLLUTANT: 3 SO2 ppm SOURCE: Unit 3 EPISODE: SO2 Analyzer Downtime

Incident Incident Length Start End Hrs. Reason 14:00 12/04/2017 14:59 1.0 Quality Assurance Activity 12/04/2017

Navajo Unit 3 CO2 Downtime Report

SRP - Navajo, Unit 3 Navajo Generating Station Page, AZ 86040

Start: 10/01/2017 00:00 End: 12/31/2017 23:59

POLLUTANT: 3 CO2 cor SOURCE: Unit 3 EPISODE: CO2 Analyzer Downtime

Incident Start

Incident

12/04/2017 14:00 12/04/2017 14:59

Length

Hrs. End

Reason

1.0 Quality Assurance Activity

Navajo Unit 3 NOx Excess Emission Report

SRP - Navajo, Unit 3 Navajo Generating Station Page, AZ 86040

Start: 10/01/2017 00:00

End: 12/31/2017 23:59

Emission Limit: 0.24 lb/mmBTU, 30 Day rolling average

Date and Time Period

Magnitude

Reason

No Excess Emission

Navajo Unit 3 NOx Downtime Report

SRP - Navajo, Unit 3 Navajo Generating Station Page, AZ 86040 Start: 10/01/2017 00:00

End: 12/31/2017 23:59

POLLUTANT: 3 NOx cor SOURCE: Unit 3 EPISODE: NOx Analyzer Downtime

Navajo Unit 3 CO Excess Emission Report

SRP - Navajo, Unit 3 Navajo Generating Station

End:

Start: 10/01/2017 00:00

Page, AZ 86040

12/31/2017 23:59

Emission Limit: 0.23 lb/mmBTU, 30 Day rolling average

Date and Time Period

Magnitude

Reason

No Excess Emission

Navajo Unit 3 CO Excess Emission Report

SRP - Navajo, Unit 3 Navajo Generating Station Page, AZ 86040

Start: 10/01/2017 00:00 End: 12/31/2017 23:59

Emission Limit: 0.15 lb/mmBTU, 12-Month rolling average

Date and Time Period

Magnitude

Reason

No Excess Emission

Navajo Unit 3 CO Downtime Report

SRP - Navajo, Unit 3 Navajo Generating Station

Page, AZ 86040

Start: 10/01/2017 00:00 End: 12/31/2017 23:59

POLLUTANT: 3 CO cor SOURCE: Unit 3 EPISODE: CO Analyzer Downtime

Incident

Incident

Length

Start 12/04/2017

End Hrs. 14:00 12/04/2017 14:59

1.0 Quality Assurance Activity